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United States Department of Agriculture
Natural Resources Conservation Service
Plant Materials Center
Bismarck, North Dakota

'REGAL'

Russian Almond



'Regal' Russian almond

Regal Russian almond, *Prunus tenella* Batsch., is a seed propagated cultivar recommended for use in multi-row farmstead and field windbreaks, wildlife habitat, and plantings associated with mitigation of transportation and emission corridors and recreation development.

It was released in 1997 by the USDA, Natural Resources Conservation Service (NRCS) in cooperation with the State Agricultural Experiment Stations of North Dakota, South Dakota and Minnesota.



Description

Russian almond, also known as dwarf almond, is a densely suckering shrub which may reach a height of 6 feet (180 cm). It is an upright shrub with smooth twigs and lustrous green, narrow leaves which are 1 1/2 to 2 3/4 inches in length. The leaves are simple and have a saw-toothed margin. The pink flowers are grouped in one to three blossoms, about 3/4 inch across, and appear in early May at Bismarck, ND. The

fruit is an ovoid nut with a hard, hairy shell, which usually ripens by the end of August. An average to good seed crop can be expected each year. Russian almond survives in Plant Hardiness Zone 2.

Origin

Russian almond's native range extends from the steppes of eastern Europe eastward to Mongolia. Accession ND-283, PI 540442, originated from plants obtained from North Dakota Game and Fish Department. These were most likely grown from seed collected in the early 1950's from the Agriculture Canada, Research Station, Morden, Manitoba, Canada. Since that time, Russian almond has been raised by conservation nurseries in the Northern Great Plains.

Establishment

Eliminate all competing vegetation by cultivating the planting site and keeping it fallow for at least one year prior to planting. Plant seedlings in the spring as soon as the ground thaws and soil moisture is high. The recommended within-the-row spacing is 3 to 4 feet. Weeds should be controlled for 4 to 5 years. Once suckering has started, chemical weed control would be preferred. The plants will eventually form a solid row. Irrigation may be needed to ensure early survival on drier sites. Plant width will generally exceed plant height in about 10 years, due to aggressive suckering habit. Regal is long-lived and may live 15 years or more.

Propagation

Regal is propagated by seed. The mature fruit can be collected from late August to early September. As the husks of the fruit mature and dry, the seed drops to the ground. These husks can be removed by wet maceration, and then dried. Three pounds of fruit will yield a pound of clean seed, with an average of 600 seeds per pound. The seed requires a minimum of 90 days cold stratification to overcome seed dormancy. Untreated seed should be planted in early fall (September), or stratified seed may be planted in the spring. If spring planted, the seed should be stratified in damp sand or peat moss for 90 days at 35-40 degrees F. Germination of 90 percent can be obtained using this treatment.

The stratified seed should be planted as early as possible, at a rate of 15 to 20 seeds per linear foot, and covered by 1/2 to 1 inch of soil. Two-year-old seedlings can be field planted. Field planting stock should have a height of 1 to 2 feet and a caliper of 3/16 to 1/2 inch at 1 inch above the root collar.



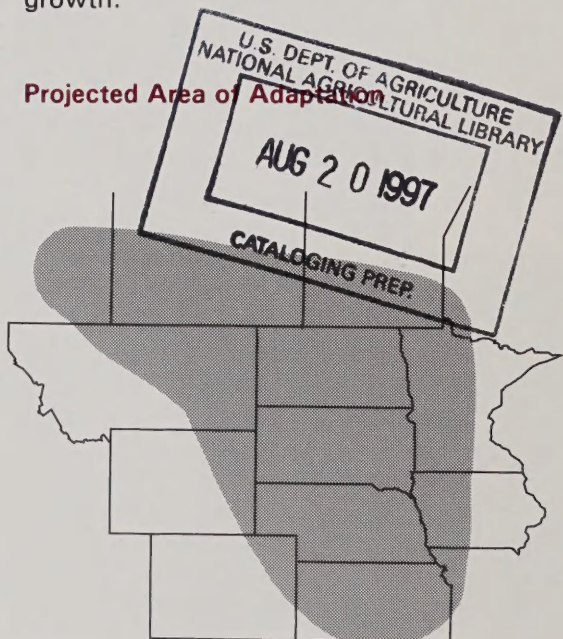
Adaptation

The USDA, Natural Resources Conservation Service has evaluated the adaptation and performance of Regal Russian almond at their Plant Materials Centers at Bismarck, North Dakota; Bridger, Montana; Manhattan, Kansas; East Lansing, Michigan and Quicksand, Kentucky.

Forty-five field evaluation plantings in actual use situations were conducted cooperatively with state and federal agencies and district cooperators.

Regal has performed well on most soil types including loam, silt loam, silty clay loam and heavy clay soils (NRCS WSG 1,3,4). It will perform satisfactorily on sandy loam soils (WSG 5); however, annual growth and vigor will be reduced. A weed free environment will ensure good survival and growth.

Projected Area of Adaptation



The results of these studies and others conducted in adjacent states indicates that Regal is adapted to North Dakota, South Dakota, Montana, Wyoming, Minnesota, Nebraska and Kansas. However, Regal is not adapted to areas of high rainfall and humidity. These conditions will result in a lack of vigor, which will make the seedlings susceptible to foliar and stem diseases such as black knot, *Apiosporina morbosa*.

Availability

The USDA, Natural Resources Conservation Service, Plant Materials Center, 3308 University Drive, Bismarck, North Dakota 58504, will maintain the breeders and foundation seed. Certified seed will be available from growers approved by the North Dakota, South Dakota, and Minnesota state certified seed departments.

For more information on availability and use of Regal Russian almond, contact your local USDA NRCS office.

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